AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An organosiloxane copolymer film having plural kinds of organosiloxane ~~as~~ derived composition units,

wherein the plural kinds of organosiloxane derived composition units ~~derived from the plural kinds of organosiloxane~~ comprises at least ~~both of~~ a first organosiloxane with a cyclosiloxane backbone derived unit and a second organosiloxane with a straight-chain siloxane backbone derived unit;

wherein the organosiloxane copolymer film forms a bridge structure by bonding a plurality of second ~~organiesiloxanes~~ organosiloxanes to the first organosiloxane; and

wherein the copolymer film has a film configuration in which a content ratio of the first organosiloxane backbone derived unit and the second organosiloxane with a straight-chain siloxane backbone derived unit is changing in the film thickness direction.

2. (canceled).

3. (currently amended): An organosiloxane copolymer film according to claim ~~2~~1, wherein the copolymer film is configured so that an upper and a lower planes of the copolymer film in the thickness direction are both contacting an inorganic insulation film,

wherein~~, regarding the content ratio of the composition unit derived from the first organosiloxane and the composition unit derived from the second organosiloxane,~~ the content ratio of the second organosiloxane ~~with straight-chain siloxane backbone~~derived unit is higher in the vicinity of an interface with the inorganic insulation film at both the upper plane and lower plane, ~~on the contrary,~~ than the content ratio of the second organosiloxane derived unit ~~is lower~~ at an inner portion of the copolymer film ~~compared with the content ratio in the vicinity of the interface~~; and~~,~~

wherein a density of the copolymer film in the vicinity of the interface is larger than a density of the copolymer film in the inner portion of the copolymer film.

4. (currently amended): A semiconductor device comprising an interlayer insulation film consisting of an organosiloxane film,

wherein~~,~~ the organosiloxane film is an organosiloxane copolymer film having plural kinds of organosiloxane ~~as~~ derived composition units;

wherein~~,~~ the plural kinds of organosiloxane derived composition units ~~derived from the plural kinds of organosiloxane~~ comprises at least ~~both of~~ a first organosiloxane with a cyclosiloxane backbone derived unit and a second organosiloxane with a straight-chain siloxane backbone derived unit;

wherein~~,~~ a bridge structure is formed by bonding a plurality of second organosiloxanes to the first organosiloxane;

wherein~~,~~ the organosiloxane copolymer film is sandwiched by inorganic insulators;

wherein~~, regarding a content ratio of the composition unit derived from a first organosiloxane and the composition unit derived from a second organosiloxane,~~ the content ratio of the second organosiloxane ~~with straight-chain siloxane backbone~~derived unit is higher in the vicinity of an interface with an inorganic insulation film at both an upper and a lower planes, ~~on the contrary,~~than the content ratio of the second organosiloxane ~~is lower~~derived unit at an inner portion of the copolymer film ~~compared with the content ratio in the vicinity of the interface~~; and

wherein, a wiring layer is formed within the organosiloxane copolymer film embedding a copper film therein.

5. (currently amended): A vapor deposition method for depositing an organosiloxane copolymer film having plural kinds of organosiloxane ~~as~~ derived composition units on a substrate, wherein the plural kinds of organosiloxane ~~copolymer film~~derived composition units ~~comprising~~ comprise at least ~~both of~~ a first organosiloxane with a cyclosiloxane backbone derived unit and a second organosiloxane with a straight-chain siloxane backbone derived unit~~as the composition unit derived from the plural kinds of organosiloxane~~, and wherein the organosiloxane copolymer film forms a bridge structure by bonding a plurality of second ~~organicsiloxanes~~ organosiloxanes to the first organosiloxane,

wherein the method ~~comprising~~comprises~~,~~ the steps of:

vaporizing a first organosiloxane monomer with cyclosiloxane backbone;

vaporizing a second organosiloxane monomer with straight-chain siloxane backbone;

supplying a vaporized first organosiloxane monomer gas at a predetermined supply rate;

supplying a vaporized second organosiloxane monomer gas at a predetermined supply rate;

forming a mixed gas by mixing the supplied first organosiloxane monomer gas and the supplied second organosiloxane monomer gas;

introducing the mixed gas in a reaction chamber under reduced pressure; -and

spraying the introduced mixed gas onto a heated substrate after passing through a plasma atmosphere generated in the reaction chamber,

wherein, the vapor deposition method grows a copolymer film forming a bridge structure by reacting the first organosiloxane monomer and the second organosiloxane monomer in the mixed gas sprayed onto the substrate, and thereby bonding a plurality of second organosiloxanes to the first organosiloxane.

6. (currently amended): A vapor deposition method according to claim 5, wherein a supply rate ratio of the first organosiloxane monomer gas and the second organosiloxane monomer gas is changed by changing supply rates of the first organosiloxane monomer gas and the second organosiloxane monomer gas respectively, and thereby in response to ~~a~~ the change of the supply rate ratio, a content ratio of the ~~unit derived from the~~ first organosiloxane ~~with cyclosiloxane backbone~~derived unit and ~~the unit derived from~~ the second organosiloxane ~~with straight-chain siloxane backbone~~derived unit is changing in the film thickness direction.

7-8. (canceled).

9. (new): The organosiloxane copolymer film according to claim 1, wherein the bridge structure is formed by bonding in plural the first organosiloxane and the second organosiloxane via an organic group.